

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
1	BRS	L1	1747	botulinum adj (toxin or neurotoxin)	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/04/04 10:01			
2	BRS	L2	115731	pain	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/04/04 10:01			
3	BRS	L3	11506	2 same (post-operative or surgery)	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/04/04 10:02			
4	BRS	L4	67	1 same 3	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/04/04 10:08			
5	BRS	L5	132	aoki adj kei.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/04/04 10:36			
6	BRS	L6	6	aoki adj roger.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/04/04 10:36			
7	BRS	L7	16	cui adj minglei.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/04/04 10:36			
8	BRS	L8	49	jenkins adj stephen.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/04/04 10:36			
9	BRS	L9	175	L5 or L6 or L7 or L8	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/04/04 10:36			
10	BRS	L10	18	4 and 9	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/04/04 10:36			

=> d his

(FILE 'HOME' ENTERED AT 10:37:34 ON 04 APR 2006)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA'  
ENTERED AT

10:38:08 ON 04 APR 2006

L1 30132 S BOTULINUM (W) (TOXIN OR NEUROTOXIN)  
L2 903941 S PAIN  
L3 101136 S L2 (P) (POST-OPERATIVE OR SURGERY)  
L4 160 S L1 (P) L3  
L5 73 DUPLICATE REMOVE L4 (87 DUPLICATES REMOVED)  
L6 28315 S L2 (10A) (POST-OPERATIVE OR SURGERY)  
L7 36 S L1 (P) L6  
L8 13 DUPLICATE REMOVE L7 (23 DUPLICATES REMOVED)  
L9 2060 S L2 (10A) INCISION?  
L10 1 S L1 (P) L9  
L11 0 S L10 NOT L6  
L12 19 S L5 AND PY <2001  
L13 16 S L12 NOT L8  
L14 12758 S AOKI K?/AU  
L15 1002 S AOKI R?/AU  
L16 1305 S CUI M?/AU  
L17 4265 S JENKINS S?/AU  
L18 19299 S L14 OR L15 OR L16 OR L17  
L19 219 S L18 AND L1  
L20 4 S L19 AND L3  
L21 4 DUPLICATE REMOVE L20 (0 DUPLICATES REMOVED)  
L22 4 S L21 NOT (L8 OR L13)

=> log y

FILE 'MEDLINE' ENTERED AT 10:38:08 ON 04 APR 2006

FILE 'CAPLUS' ENTERED AT 10:38:08 ON 04 APR 2006  
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FILE 'AGRICOLA' ENTERED AT 10:38:08 ON 04 APR 2006

=> s botulinum (w) (toxin or neurotoxin)  
L1 30132 BOTULINUM (W) (TOXIN OR NEUROTOXIN)

=> s pain  
L2 903941 PAIN

=> s l2 (p) (post-operative or surgery)  
L3 101136 L2 (P) (POST-OPERATIVE OR SURGERY)

=> s l1 (p) l3  
L4 160 L1 (P) L3

=> duplicate remove l4  
DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH'  
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n  
PROCESSING COMPLETED FOR L4  
L5 73 DUPLICATE REMOVE L4 (87 DUPLICATES REMOVED)

=> s l2 (10a) (POST-OPERATIVE OR SURGERY)  
L6 28315 L2 (10A) (POST-OPERATIVE OR SURGERY)

=> s l1 (p) l6  
L7 36 L1 (P) L6

=> duplicate remove l7  
DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH'  
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n  
PROCESSING COMPLETED FOR L7  
L8 13 DUPLICATE REMOVE L7 (23 DUPLICATES REMOVED)

=> d l8 1-13 ibib abs

L8 ANSWER 1 OF 13 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN  
ACCESSION NUMBER: 2005160376 EMBASE  
TITLE: [The use of botulinum toxin type A for pain management].  
AGRI TEDAVISINDE BOTULINUM TOKSINI TIP A KULLANIMI.  
AUTHOR: Tuzuner F.; Asik I.  
CORPORATE SOURCE: I. Asik, Kennedy Cad 98/2, K.Esat, Ankara, Turkey.  
iasik@yahoo.com  
SOURCE: Anestezi Dergisi, (2005) Vol. 13, No. 1, pp. 1-9. .  
Refs: 44  
ISSN: 1300-0578 CODEN: ADNECY  
COUNTRY: Turkey  
DOCUMENT TYPE: Journal; General Review  
FILE SEGMENT: 008 Neurology and Neurosurgery  
024 Anesthesiology  
030 Pharmacology  
037 Drug Literature Index  
038 Adverse Reactions Titles  
LANGUAGE: Turkish  
SUMMARY LANGUAGE: Turkish; English

ENTRY DATE: Entered STN: 28 Apr 2005  
Last Updated on STN: 28 Apr 2005

AB \*\*\*Botulinum\*\*\* \*\*\*toxin\*\*\* type A (BTX-A) has been used clinically for a number of disorders believed to be due to overactive striated or smooth muscles. Botulinum toxin has been shown to be effective for the treatment of various dystonic conditions such as blepharospasm, spasmodic torticollis, spasmodic dysphonia, and facial spasm. In addition to reducing muscle hyperactivity and spasm, BTX-A treatment often reduces the pain associated with cervical dystonia, achalasia, and rectal fissures. After irreversibly binding to presynaptic cholinergic nerve terminals, \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* prevents the release of acetylcholine, resulting in sustained muscle relaxation, which lasts until regeneration (reinnervation) of the nerve terminals is accomplished. Preliminary evidence suggests that it may also be beneficial in the treatment of chronic low back pain associated with muscle spasm. This review discusses the historical development of botox, its indications, contra-indications and side effects, the doses prescribed for various disorders, the mechanism of action and the use of botox in the treatment of \*\*\*pain\*\*\* conditions including headache, myofascial \*\*\*pain\*\*\*, and failed back \*\*\*surgery\*\*\* syndrome.

L8 ANSWER 2 OF 13 MEDLINE on STN DUPLICATE 1  
ACCESSION NUMBER: 2004466086 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 15376476  
TITLE: Pallidal deep brain stimulation in cervical dystonia: clinical outcome in four cases.  
AUTHOR: Eltahawy H A; Saint-Cyr J; Poon Y Y; Moro E; Lang A E; Lozano A M  
CORPORATE SOURCE: Toronto Western Hospital, Division of Neurosurgery, Toronto, Ontario, Canada.  
SOURCE: The Canadian journal of neurological sciences. Le journal canadien des sciences neurologiques, (2004 Aug) Vol. 31, No. 3, pp. 328-32.  
Journal code: 0415227. ISSN: 0317-1671.  
PUB. COUNTRY: Canada  
DOCUMENT TYPE: (CASE REPORTS)  
Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200410  
ENTRY DATE: Entered STN: 20040921  
Last Updated on STN: 20041019  
Entered Medline: 20041018

AB OBJECTIVE: Report on the clinical results following bilateral globus pallidus interna deep brain stimulation in four patients (one female and three males) with severe cervical dystonia, mean age 48 years (range 37-67). METHODS: All four patients had failed extensive medical and \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* treatment. The mean duration of the disease was nine years (range 4-15 years). Patients were assessed pre and postoperatively using the Toronto Western Spasmodic Torticollis Rating Scale (TWSTRS). Pre-operatively, the mean TWSTRS total score was 43.2 (range 28-60.5). Posteroventral pallidal deep brain stimulators were inserted using MRI and microelectrode recording guidance. Last follow-up was 15 months for the four patients. RESULTS: Mean reduction in the TWSTRS total scores at last follow-up was 73% (range 61- 85%). Improvement in \*\*\*pain\*\*\* occurred soon after deep brain stimulation \*\*\*surgery\*\*\*. Motor improvement was delayed and prolonged over several months. Frequent adjustment in the stimulation parameters was necessary in the first three months. CONCLUSION: Bilateral pallidal stimulation is effective in management of selected cases of intractable cervical dystonia.

L8 ANSWER 3 OF 13 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN DUPLICATE 2  
ACCESSION NUMBER: 2004290916 EMBASE  
TITLE: Botulinum toxin a for vulvodynia: A case report.  
AUTHOR: Gunter J.; Brewer A.; Tawfik O.  
CORPORATE SOURCE: Dr. J. Gunter, Dept. of Obstetrics and Gynecology, University of Colorado, Health Sciences Center, Denver, CO 80262, United States. jennifer.gunter@uchsc.edu  
SOURCE: Journal of Pain, (2004) Vol. 5, No. 4, pp. 238-240.

Refs: 14  
ISSN: 1526-5900 CODEN: JPOAB5

PUBLISHER IDENT.: S 1526-5900(04)00634-0  
COUNTRY: United States  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 008 Neurology and Neurosurgery  
036 Health Policy, Economics and Management  
037 Drug Literature Index  
038 Adverse Reactions Titles  
039 Pharmacy

LANGUAGE: English  
SUMMARY LANGUAGE: English  
ENTRY DATE: Entered STN: 29 Jul 2004  
Last Updated on STN: 29 Jul 2004

AB Vulvodynia is a poorly understood chronic pain condition, and patients who are refractory to standard therapies often pose a therapeutic dilemma. Current treatment modalities include antidepressants, anticonvulsants, biofeedback, pelvic floor physical therapy, and surgery; however, the options are limited for patients who fail to respond to these treatments. We present a case of refractory vulvodynia with severe dyspareunia successfully managed with a novel therapeutic approach combining \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* A and surgery. Perspective The authors present a case of refractory vulvodynia that was successfully managed with a novel approach that combined \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* A and \*\*\*surgery\*\*\* . .COPYRGT. 2004 by the American \*\*\*Pain\*\*\* Society.

L8 ANSWER 4 OF 13 MEDLINE on STN DUPLICATE 3

ACCESSION NUMBER: 2004025133 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 14724905  
TITLE: Botulinum toxin type A for the treatment of chronic neck pain after neck dissection.  
AUTHOR: Vasan Claus Wittekindt; Liu Wei-Chi; Klussmann Jens-Peter; Guntinas-Lichius Orlando  
CORPORATE SOURCE: University Hospital Cologne, Department of Otorhinolaryngology, Head and Neck Surgery, Joseph-Stelzmann-Strasse 9, D-50924 Koeln, Germany.. claus.wittekindt@uni-koeln.de  
SOURCE: Head & neck, (2004 Jan) Vol. 26, No. 1, pp. 39-45. Journal code: 8902541. ISSN: 1043-3074.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200406  
ENTRY DATE: Entered STN: 20040116  
Last Updated on STN: 20040604  
Entered Medline: 20040603

AB BACKGROUND: Neck dissection \*\*\*surgery\*\*\* is often followed by chronic head and neck \*\*\*pain\*\*\* . To date optimal treatment of this type of pain is lacking. \*\*\*Botulinum\*\*\* \*\*\*toxin\*\*\* type A (BTX-A) has been shown to be effective in the treatment of myofascial pain syndrome and headache. In a pilot study, we wanted to test the effectiveness of BTX-A for the treatment of chronic neck pain after neck dissection. METHODS: Sixteen patients with chronic neck pain after neck dissection were included in this prospective, open study. Eighty to 320 units of BTX-A (Dysport) were injected into muscular trigger points. Outcome measures included chronic pain and shooting pain on the basis of visual analog scales and quality of life improvement (EORTC QLQ-C-30; EORTC QLQ-H and N35) before and 4 weeks after treatment. RESULTS: Patients showed a significant reduction in chronic pain (4.5 before to 3.3 after treatment,  $p = .005$ ) and in shooting pain (6.1 before to 4.7 after treatment,  $p = .005$ ). There was a trend toward improvement in global quality of life (QLQ-C30,  $p = .097$ ) and an increase on the functional scale "pain" (QLQ-H and N35,  $p = .071$ ). CONCLUSIONS: BTX-A treatment of subjects with chronic neck pain after neck dissection resulted in a fast and significant reduction of pain. A significant improvement in quality of life may be expected in a longer time course after treatment. Copyright 2004 Wiley Periodicals, Inc.

L8 ANSWER 5 OF 13 MEDLINE on STN DUPLICATE 4  
ACCESSION NUMBER: 2003372476 MEDLINE

DOCUMENT NUMBER: PubMed ID: 12907905  
TITLE: Botulinum toxin (botox) reduces pain after hemorrhoidectomy: results of a double-blind, randomized study.  
AUTHOR: Davies Justin; Duffy David; Boyt Nicholas; Aghahoseini Assad; Alexander David; Leveson Stephen  
CORPORATE SOURCE: Department of Colorectal Surgery, York District Hospital, York, United Kingdom.  
SOURCE: Diseases of the colon and rectum, (2003 Aug) Vol. 46, No. 8, pp. 1097-102.  
Journal code: 0372764. ISSN: 0012-3706.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: (CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
(RANDOMIZED CONTROLLED TRIAL)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200310  
ENTRY DATE: Entered STN: 20030809  
Last Updated on STN: 20031003  
Entered Medline: 20031002

AB PURPOSE: Pain after hemorrhoidectomy appears to be multifactorial and dependent on individual pain tolerance, mode of anesthesia, postoperative analgesia, and surgical technique. Spasm of the internal sphincter is believed to play an important role. The aim of this study was to assess the role of \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* in reducing pain after Milligan-Morgan hemorrhoidectomy. METHODS: This was a double-blind study of 50 consecutive patients undergoing Milligan-Morgan hemorrhoidectomy and assigned to an internal sphincter injection of 0.4 ml of solution containing either \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* (20 U; Botox) or normal saline. Patients were managed according to standardized perioperative analgesic and laxative regimens. Pain was assessed by use of daily visual analog scores and analgesia requirements for the first seven postoperative days. RESULTS: Patients randomized to receive \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* had lower daily average and maximal visual analog scores throughout the study period. The difference reached significance on both Day 6 ( $P < 0.05$ ) and Day 7 ( $P < 0.05$ ). There was no significant difference ( $P = 0.12$ ) in morphine requirements in the first 24 hours (botulinum group, 16 (range, 6-27) mg; placebo arm, 22 (range, 13-41) mg). Patients who received Botox used 19 (range, 8-36) coproxamol tablets in the first seven days after surgery compared with 23 (range, 10-40) in the placebo arm ( $P = 0.63$ ). CONCLUSIONS: Those patients who had \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* had significantly less \*\*\*pain\*\*\* toward the end of the first week after \*\*\*surgery\*\*\*. Reduction in spasm within the internal sphincter is the presumed mechanism of action. This is the first reported randomized, controlled trial using \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* in hemorrhoidectomy.

L8 ANSWER 6 OF 13 MEDLINE on STN DUPLICATE 5  
ACCESSION NUMBER: 2003348371 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 12881840  
TITLE: Use of botulinum toxin type A on orthopedics: a case report.  
AUTHOR: Saenz Ana; Avellanet Merce; Garreta Roser  
CORPORATE SOURCE: Rehabilitation Department, Hospital Nostra Senyora de Meritxell, Andorra, Spain.. asgandorra@hotmail.com  
SOURCE: Archives of physical medicine and rehabilitation, (2003 Jul) Vol. 84, No. 7, pp. 1085-6.  
Journal code: 2985158R. ISSN: 0003-9993.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: (CASE REPORTS)  
Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals  
ENTRY MONTH: 200308  
ENTRY DATE: Entered STN: 20030726  
Last Updated on STN: 20030813  
Entered Medline: 20030812

AB \*\*\*Botulinum\*\*\* \*\*\*toxin\*\*\* type A is effective in treating neurologic entities with increased muscle tone. Few reports show the benefits of this treatment for orthopedic conditions. We present the case

of a 54-year-old man who manifested bilateral pectoralis major stiffness and bilateral shoulder pain; he had a score of 6 on a visual analog scale (VAS). Complex regional \*\*\*pain\*\*\* syndrome (type I) after cardiac \*\*\*surgery\*\*\*, which had already been resolved, was significant in the patient's clinical background. On examination, neither increases in muscle tone nor signs of tendinous or joint pathology was found. However, the patient experienced significant pain when both pectorals were stretched. The patient's Constant score, a validated scale of shoulder function, was 45/100 on the right shoulder and 41/100 on the left. The patient's shoulder stiffness and pain neither responded to rehabilitation (stretching exercises, passive mobilization, electrostimulation) nor to oral medication (alprazolam, gabapentin). Despite the lack of increased muscle tone, we decided to administer \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* type A to control pain. Subsequently, pain intensity was reduced to 4 on a VAS on both sides, and functionality improved (Constant scale score, 62 on the right side; 60 on the left). This improvement enabled the patient to resume his job as a building supervisor, which required active involvement in physical construction work.

L8 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:964907 CAPLUS  
DOCUMENT NUMBER: 138:11436  
TITLE: Use of botulinum toxin for the treatment of pain, including neuralgia-associated pain  
INVENTOR(S): Borodic, Gary E.; Acquadro, Martin A.  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 5 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002192239	A1	20021219	US 2002-40830	20020108
PRIORITY APPLN. INFO.:			US 2001-260515P	P 20010109

AB The invention includes a method of treating pain caused by neuralgia, comprising administering \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* to an afflicted area of a patient. The pain may be caused by trigeminal neuralgia or be assocd. with dental extn. or reconstruction, and may be facial pain. The neuralgia may be assocd. with compressive forces on a sensory nerve, intrinsic nerve damage, demyelinating disease, a genetic disorder, a metabolic disorder, central neurol. vascular disease, or trauma. The invention also includes a method of treating \*\*\*post\*\*\* - \*\*\*operative\*\*\* incisional wound \*\*\*pain\*\*\* comprising administering \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* to an afflicted area of a patient. The \*\*\*post\*\*\* - \*\*\*operative\*\*\* incisional wound \*\*\*pain\*\*\* may be assocd. with medical treatments selected from the group consisting of sinus surgery, removal of an eye, temporal mandibular joint surgery, parotid gland extn. and resection, craniotomy for removal of an intracranial tumor, intra-ocular surgery, acoustic neuroma surgery, reconstructive procedures after tumor resection, radiation therapy for the treatment of cancer, skull base surgery, orbitectomy, facial bone removal, muscle removal, skin removal, and construction of myocutaneous flaps.

L8 ANSWER 8 OF 13 MEDLINE on STN DUPLICATE 6

ACCESSION NUMBER: 2002079619 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 11807336  
TITLE: The interosseous twitch: treatment with botulinum toxin.  
AUTHOR: Ramos Richard D; Goodman Bradley S; Kirschberg Gordon J  
CORPORATE SOURCE: Alabama Orthopaedic and Spine Center, 52 Medical Park East Drive, Suite 115, Birmingham, AL 35242, USA.  
SOURCE: American journal of physical medicine & rehabilitation / Association of Academic Physiatrists, (2002 Jan) Vol. 81, No. 1, pp. 66-7.  
Journal code: 8803677. ISSN: 0894-9115.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: (CASE REPORTS)  
Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English

FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals  
ENTRY MONTH: 200202  
ENTRY DATE: Entered STN: 20020128  
Last Updated on STN: 20020206  
Entered Medline: 20020205

AB We present an 18-yr-old softball player who underwent \*\*\*surgery\*\*\* for a glenoid labrum tear and subsequent placement of a \*\*\*pain\*\*\* catheter pump. One month after withdrawing the catheter, the patient developed uncontrollable movements of her fourth digit. Neurology did not think it was a true dystonia but administered multiple medications without any relief of her symptoms. Upon referral, it was thought there was isolated contraction of the fourth dorsal and second volar interosseous muscle that was causing her finger to twitch back and forth in the plane of her hand; \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* was injected into these two muscles with complete resolution of her symptoms and pain.

L8 ANSWER 9 OF 13 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2003:108701 BIOSIS

DOCUMENT NUMBER: PREV200300108701

TITLE: Treatment of Piriformis Muscle Syndrome with Botulinum Toxin-A.

AUTHOR(S): Saleemi, Serosh [Reprint Author]

CORPORATE SOURCE: Department of Anesthesia, Louisiana State University Health Sciences Center, Shreveport, LA, USA

SOURCE: Anesthesiology Abstracts of Scientific Papers Annual Meeting, (2002) No. 2002, pp. Abstract No. A-879.  
<http://www.asa-abstracts.com.cd-rom>.

Meeting Info.: 2002 Annual Meeting of the American Society of Anesthesiologists. Orlando, FL, USA. October 12-16, 2002. American Society of Anesthesiologists Inc.

DOCUMENT TYPE: Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 26 Feb 2003

Last Updated on STN: 26 Feb 2003

AB Piriformis syndrome has been documented as a primary or contributory cause of "sciatica" and low back pain. We present a retrospective review of fifty patients who underwent intrapiriformis muscle botox injection with remarkable pain relief at 6 to 8 weeks follow-up. The demographic characteristics of the study group is given in Table I. Our diagnostic criteria for piriformis muscle syndrome are: Gluteal pain with or without pain radiating down the affected leg in the distribution of sciatic nerve, muscle spasms/pull in leg muscles, positive Beatty's Maneuver with or without the presence of tenderness in buttock, and L5 or S1 sensory nerve root hypoesthesia of A-delta fibers on affected side. V-SNCT, Voltage-Sensitive Nerve Conduction Threshold, is a direct quantitative sensory test (QST), which provides a reproducible (<0.2mA) functional assessment of the peripheral sensory nervous system by measuring that voltage intensity which initiates membrane potential changes, to propagate a nerve impulse. The \*\*\*Botulinum\*\*\* - \*\*\*toxin\*\*\* A used for injection is a standardized preparation. 100 Units of Botox<sup>TM</sup> in 5 cc of preservative-free 0.9 N saline was injected into the piriformis muscle, under fluoroscopic guidance. Results: All patients reported a reduction in pain score. VAS pain score in the study population (n=50) was 8.87+- 0.15 prior to treatment and 4.5+-0.2 after treatment (p<0.01). McGill score (n=27) was 40.6 +-3.04 before and 21.5 +-2.51 after the injection (p<0.01), Oswestry (n=27) changed from 25.9+- 1.26 to 11.7 +-1.02 (p<0.01) and Roland-Morris (n=27) decreased from 16.0 +- .935 to 20.6+- 1.02 (p<0.01). Discussion \*\*\*Botulinum\*\*\* \*\*\*toxin\*\*\* -A\*\* is a 150 Kda protein neurotoxin, produced by Clostridium botulinum, which acts presynaptically by inhibiting the release of acetylcholine, thus leading to functional denervation of the muscle. This lasts up to 6 months. The piriformis muscle is a pyramidal muscle, which arises from the ventrolateral aspect of the sacrum from S1-S4, gluteal surface of ilium and the anterior capsule of the sacroiliac joint and passes laterally through the greater sciatic foramen to its insertion on greater trochanter of femur. The signs and symptoms of sciatica caused by piriformis syndrome can be explained by the close relationship of the muscle to sciatic nerve at the sciatic notch. A variety of therapeutic approaches have been suggested for the management of piriformis syndrome like analgesics, application of heat, osteopathic manipulation, and even



surgical resection of piriformis muscle. Except for the latter, none of these modalities offer significant \*\*\*pain\*\*\* relief, and \*\*\*surgery\*\*\* is associated with morbidity. Ours is the first review where the effect of intrapiriformis muscle botox has been studied. All of our patients who underwent Botox TM injection to piriformis muscle reported a reduction in pain by 45% or more as well as improvement in their disability scores. Therefore we propose that BotoxTM injection to piriformis muscle is an effective treatment for low back pain and sciatica caused by piriformis syndrome.

L8 ANSWER 10 OF 13 MEDLINE on STN DUPLICATE 7  
 ACCESSION NUMBER: 2001486200 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 11528273  
 TITLE: Treatment of gustatory sweating with botulinum toxin: special aspects.  
 AUTHOR: Laskawi R; Rohrbach S  
 CORPORATE SOURCE: Department of Otolaryngology, Head and Neck Surgery, University of Gottingen, Germany.. rlaskawi@med.uni-goettingen.de  
 SOURCE: ORL; journal for oto-rhino-laryngology and its related specialties, (2001 Sep-Oct) Vol. 63, No. 5, pp. 294-7. Journal code: 0334721. ISSN: 0301-1569.  
 PUB. COUNTRY: Switzerland  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200112  
 ENTRY DATE: Entered STN: 20010903  
 Last Updated on STN: 20020124  
 Entered Medline: 20011231

AB \*\*\*Botulinum\*\*\* \*\*\*toxin\*\*\* treatment is an efficient, well-tolerated technique for patients suffering from gustatory sweating, first described by our group. With the experience gained in recent years we were able to improve on some of our skills in the diagnosis and treatment of gustatory sweating and here we wish to focus on some interesting aspects: (1) the necessity for an exact anamnesis before treatment with \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* to ensure correct treatment; (2) the advantages of Minor's test in special situations, for example, when sweating occurs in regions of hairy skin, retroauricular, at the back of the auricle and in areas distant from the site of salivary gland \*\*\*surgery\*\*\*; (3) the reduction of \*\*\*pain\*\*\* during treatment using an anesthetic ointment containing lidocaine and prilocaine as active substances; (4) intracutaneous injections in areas anterior to the fascia-protected skin of the lateral face-covering mimetic muscles, and (5) the occasional necessity for short-time reinjection in small areas of persistent sweating.  
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L8 ANSWER 11 OF 13 MEDLINE on STN DUPLICATE 8  
 ACCESSION NUMBER: 2000193719 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 10727482  
 TITLE: Pattern of premature degenerative changes of the cervical spine in patients with spasmodic torticollis and the impact on the outcome of selective peripheral denervation.  
 AUTHOR: Chawda S J; Munchau A; Johnson D; Bhatia K; Quinn N P; Stevens J; Lees A J; Palmer J D  
 CORPORATE SOURCE: National Hospital for Neurology and Neurosurgery, Queen Square, London, UK.. sanjivchawda@hotmail.com  
 SOURCE: Journal of neurology, neurosurgery, and psychiatry, (2000 Apr) Vol. 68, No. 4, pp. 465-71. Journal code: 2985191R. ISSN: 0022-3050.  
 PUB. COUNTRY: ENGLAND: United Kingdom  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200006  
 ENTRY DATE: Entered STN: 20000616  
 Last Updated on STN: 20000616  
 Entered Medline: 20000605

AB OBJECTIVES: To characterise the pattern of and risk factors for degenerative changes of the cervical spine in patients with spasmodic

torticollis and to assess whether these changes affect outcome after selective peripheral denervation. METHODS: Preoperative CT of the upper cervical spine of 34 patients with spasmodic torticollis referred for surgery were reviewed by two radiologists blinded to the clinical findings. Degenerative changes were assessed for each joint separately and rated as absent, minimal, moderate, or severe. Patients were clinically assessed before surgery and 3 months postoperatively by an independent examiner using standardised clinical rating scales. For comparison of means a t test was carried out. To determine whether an association exists between the side of degenerative changes and type of spasmodic torticollis a chi(2) test was used. Changes in severity, disability, and \*\*\*pain\*\*\* before and after \*\*\*surgery\*\*\* were calculated using a Wilcoxon matched pairs signed ranks test. RESULTS: Fourteen out of 34 patients had moderate or severe degenerative changes. They were predominantly found at the C2/C3 and C3/C4 level and were significantly more likely to occur on the side of the main direction of the spasmodic torticollis (p = 0.015). There was no significant difference in age, sex, duration of torticollis, overall severity, degree of disability, or pain between the group with either no or minimal changes and the group with moderate or severe changes. However, in the second group the duration of inadequate treatment was longer (10.1 v 4.8 years; p=0.009), head mobility was more restricted (p = 0.015), and head tremor was more severe (p = 0.01). At 3 months postoperatively, patients with no or minimal degenerative changes showed a significant improvement in pain and severity whereas no difference was found in those with moderate or severe changes. CONCLUSIONS: Patients with spasmodic torticollis have an increased risk of developing premature degenerative changes of the upper cervical spine that tend to be on the side towards which the head is turned or tilted and compromise outcome after surgery. Effective early treatment of spasmodic torticollis with \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* seems to have a protective effect. Patients with spasmodic torticollis and restricted head mobility who do not adequately respond to treatment should undergo imaging of the upper cervical spine. Patients with imaging evidence of moderate or severe degenerative changes seem to respond poorly to selective peripheral denervation.

L8 ANSWER 12 OF 13 MEDLINE on STN DUPLICATE 9  
 ACCESSION NUMBER: 2000478899 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 11030639  
 TITLE: Botulinum toxin for spastic gastrointestinal disorders.  
 AUTHOR: Hoogerwerf W A; Pasricha P J  
 CORPORATE SOURCE: University of Texas Medical Branch, Galveston, USA.  
 SOURCE: Bailliere's best practice & research. Clinical gastroenterology, (1999 Apr) Vol. 13, No. 1, pp. 131-43.  
 Ref: 61  
 Journal code: 100894206. ISSN: 1521-6918.  
 PUB. COUNTRY: ENGLAND: United Kingdom  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200010  
 ENTRY DATE: Entered STN: 20010322  
 Last Updated on STN: 20010322  
 Entered Medline: 20001031

AB \*\*\*Botulinum\*\*\* \*\*\*toxin\*\*\* (BTX) is one of the most potent inhibitors of acetylcholine from nerve endings, and this accounts for its toxic properties as well as its therapeutic application in a variety of neuromuscular syndromes. This review focuses on the growing use of BTX in the so-called 'spastic' disorders of the gastrointestinal tract. These include achalasia, for which the short-term efficacy of the intrasphincteric injection of BTX has been well established. However, because of the chronicity of this condition, repeated injections of the toxin may be required at regular intervals. In contrast, the relatively short duration of action may be an advantage in disorders such as chronic anal fissure, where the benefit of this therapy has now been demonstrated in hundreds of patients. There are many other sphincteric and non-sphincteric syndromes in the gut for which the efficacy of this agent is being actively tested. These include non-cardiac chest \*\*\*pain\*\*\*, \*\*\*post\*\*\* - \*\*\*operative\*\*\* pylorospasm and sphincter of Oddi dysfunction. Skeletal muscle sphincters, such as the upper oesophageal

sphincter or the external anal sphincter/puborectalis muscle, may also be targeted, with good effect. In some of these conditions, the local injection of BTX may serve as a useful therapeutic trial, facilitating the decision to institute more invasive forms of therapy. The cumulative short-term experience with BTX in the gut to date suggests that it is a relatively simple and safe therapy. The use of BTX represents a novel approach for gastrointestinal motility disorders, and the rapidly expanding list of successful applications holds promise for a more widespread use of similar agents in the future. Additional studies on long-term outcome are eagerly awaited.

L8 ANSWER 13 OF 13 MEDLINE on STN DUPLICATE 10  
 ACCESSION NUMBER: 1998040881 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 9373550  
 TITLE: Frey's syndrome: treatment with botulinum toxin.  
 AUTHOR: Bjerkhoel A; Trobbe O  
 CORPORATE SOURCE: Department of Otolaryngology, Lanssjukhuset Ryhov, Jonkoping, Sweden.  
 SOURCE: The Journal of laryngology and otology, (1997 Sep) Vol. 111, No. 9, pp. 839-44.  
 Journal code: 8706896. ISSN: 0022-2151.  
 PUB. COUNTRY: ENGLAND: United Kingdom  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals  
 ENTRY MONTH: 199712  
 ENTRY DATE: Entered STN: 19980109  
 Last Updated on STN: 19980109  
 Entered Medline: 19971209

AB Frey's syndrome, i.e. gustatory sweating on the cheek, is a fairly common embarrassment after parotid gland surgery. New surgical techniques have been proposed to avoid this complication, but are not widely in use. Hence, there is need for treatment of Frey's syndrome. All surgical and topical treatments have drawbacks. This study was set up in order to evaluate a recently described treatment. One hundred and two patients were interviewed after parotidectomy. Thirty-one of them had noticed gustatory sweating and 15 patients underwent Minor's starch iodine test before, and after, treatment with intracutaneous injections of \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* A (Botox, Allergan Inc., USA). Thirteen of the patients did not experience any gustatory sweating at follow-up (one to 13 months). Minor's starch test showed total disappearance of gustatory sweating in 12 of the 15 treated patients. The only side effect was a discreet, transitory affection of the orbicularis oris muscle in one patient. As this treatment is minimally invasive it could be an attractive treatment for Frey's syndrome if the effect is maintained. Complaints of local hypoaesthesia and \*\*\*pain\*\*\* were also common after parotid \*\*\*surgery\*\*\*.

=> d his

(FILE 'HOME' ENTERED AT 10:37:34 ON 04 APR 2006)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT 10:38:08 ON 04 APR 2006

L1 30132 S BOTULINUM (W) (TOXIN OR NEUROTOXIN)  
 L2 903941 S PAIN  
 L3 101136 S L2 (P) (POST-OPERATIVE OR SURGERY)  
 L4 160 S L1 (P) L3  
 L5 73 DUPLICATE REMOVE L4 (87 DUPLICATES REMOVED)  
 L6 28315 S L2 (10A) (POST-OPERATIVE OR SURGERY)  
 L7 36 S L1 (P) L6  
 L8 13 DUPLICATE REMOVE L7 (23 DUPLICATES REMOVED)

=> s 12 (10a) incision?

L9 2060 L2 (10A) INCISION?

=> s 11 (p) 19

L10 1 L1 (P) L9

=> s 110 not 16

L11 0 L10 NOT L6

=> s 15 and py <2001  
1 FILES SEARCHED...  
5 FILES SEARCHED...

L12 19 L5 AND PY <2001

=> s 112 not 18  
L13 16 L12 NOT L8

=> d 113 1-16 ibib abs

L13 ANSWER 1 OF 16 MEDLINE on STN  
ACCESSION NUMBER: 2001173498 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 11273544  
TITLE: A spectrum of dystonias-clinical features and update on  
management.  
AUTHOR: Das S K; Choudhary S S  
CORPORATE SOURCE: Department of Neuromedicine, Bangur Institute of Neurology,  
Calcutta 700 020.  
SOURCE: The Journal of the Association of Physicians of India,  
\*\*\* (2000 Jun) \*\*\* Vol. 48, No. 6, pp. 622-30. Ref: 37  
Journal code: 7505585. ISSN: 0004-5772.  
PUB. COUNTRY: India  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200104  
ENTRY DATE: Entered STN: 20010417  
Last Updated on STN: 20010417  
Entered Medline: 20010412

AB Dystonia is an interesting disorder characterized by involuntary movement of the body part or parts leading to abnormal deformed postures. The usual signs and symptoms are local \*\*\*pain\*\*\*, spasm and abnormal movements. Sensory trick is an important clinical phenomenon and is characteristic of dystonia. It is usually separated from other movement disorders such as chorea, athetosis, tics and myoclonus clinically. Various non-dystonic conditions simulate dystonia and need to be separated in view of different line of management. Improved understanding in molecular biology has helped in understanding of the disease. Confusing neuropathology and neurochemistry have deterred the finding of an effective drug, however empirical use of few drugs have improved the gloomy situation. Few conditions such as dopa-responsive dystonia have definite treatment. Recently use of \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* has provided beneficial response in hyper muscular contraction states such as dystonia and spasticity, \*\*\*Surgery\*\*\* and other non-medical therapies are effective in few situations.

L13 ANSWER 2 OF 16 MEDLINE on STN  
ACCESSION NUMBER: 2001098701 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 11188983  
TITLE: Pharmacological and surgical options for the treatment of  
cervical dystonia.  
AUTHOR: Adler C H; Kumar R  
CORPORATE SOURCE: Department of Neurology, Mayo Clinic Scottsdale, AZ 85259,  
USA.  
SOURCE: Neurology, \*\*\* (2000) \*\*\* Vol. 55, No. 12 Suppl 5, pp.  
S9-14. Ref: 59  
Journal code: 0401060. ISSN: 0028-3878.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
LANGUAGE: English  
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals  
ENTRY MONTH: 200102  
ENTRY DATE: Entered STN: 20010322  
Last Updated on STN: 20010322  
Entered Medline: 20010201

AB Cervical dystonia (CD) is a condition in which patients experience involuntary and abnormal head movements, such as tilting, twisting, or

extension, often accompanied by \*\*\*pain\*\*\*. Although the exact pathologic mechanisms underlying idiopathic CD have not yet been identified, a number of therapeutic strategies have been developed to alleviate the symptoms of this disorder. Oral medications include anticholinergic agents, dopamine receptor antagonists, and GABA-mimetic agents. These drugs are employed in a trial-and-error manner and have a low rate of efficacy. Localized therapy using \*\*\*botulinum\*\*\*

\*\*\*toxin\*\*\* injections has revolutionized the treatment of CD, providing a high rate of response with a low incidence of side effects. However, as with oral medications, neurotoxin therapy is palliative, not curative, and repeated injections are required. In patients who develop resistance to

\*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* therapy and who do not achieve an adequate response to, or are intolerant of, oral medications, surgical approaches are appropriate. Among the options for peripheral

\*\*\*surgery\*\*\*, the greatest experience and most consistent results have been achieved with selective dorsal rhizotomy. Recent developments in stereotactic \*\*\*surgery\*\*\* suggest that, for more complex forms of CD or when more widespread dystonia is present, bilateral pallidotomy or globus pallidus deep brain stimulation may be the treatment of choice.

L13 ANSWER 3 OF 16

MEDLINE on STN

ACCESSION NUMBER: 2000263303 MEDLINE

DOCUMENT NUMBER: PubMed ID: 10805553

TITLE: Botulinum toxin for the treatment of anal fissure.

AUTHOR: Fernandez Lopez F; Conde Freire R; Rios Rios A; Garcia Iglesias J; Cainzos Fernandez M; Potel Lesquereux J

CORPORATE SOURCE: Department of General and Digestive Surgery, Hospital Xeral de Galicia, Medical School, University of Santiago de Compostela, Spain.. cifern@usc.es

SOURCE: Digestive surgery, \*\*\* (1999) \*\*\* Vol. 16, No. 6, pp. 515-8.

Journal code: 8501808. ISSN: 0253-4886.

PUB. COUNTRY: Switzerland

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200007

ENTRY DATE: Entered STN: 20000714

Last Updated on STN: 20000714

Entered Medline: 20000706

AB BACKGROUND: The classic treatment for uncomplicated anal fissure is surgical sphincterotomy, i.e. cutting of the internal anal sphincter, thus eliminating spasm of this muscle and breaking the vicious circle of

\*\*\*pain\*\*\*, spasm and inflammation. Recently, however,

\*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* has become available for the treatment of muscular dystonias, and thus for anal fissure. In the present study, we investigated the effectiveness of treatment with \*\*\*botulinum\*\*\*

\*\*\*toxin\*\*\* in 76 patients with uncomplicated anal fissure. MATERIAL AND METHOD: The 76 patients received an injection of 40 U of

\*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* on each side of the fissure. Response was monitored 7, 30 and 90 days later. All patients who did not show clear improvement after 30 days received a second dose of 40 U on each side. RESULTS: After 90 days, 51 patients (67%) showed complete recovery, 19 patients (25%) substantial improvement though not complete recovery, and 6 patients (8%) no significant improvement. Transitory gas incontinence was reported by 2 patients (2.6%), and 1 patient presented hemorrhoidal thrombosis. DISCUSSION: \*\*\*Botulinum\*\*\* \*\*\*toxin\*\*\*

enables chemical denervation of the internal sphincter, facilitating healing of the anal fissure. Its principal advantages with respect to surgical sphincterotomy are the absence of the general risks of

\*\*\*surgery\*\*\*, and reduced incidence of incontinence, which even if it occurs tends to be transitory. The technique does not require hospitalization and is well tolerated. It appears suitable for the initial treatment of uncomplicated anal fissure, reserving surgical treatment for those cases which fail to respond adequately.

L13 ANSWER 4 OF 16

MEDLINE on STN

ACCESSION NUMBER: 2000162155 MEDLINE

DOCUMENT NUMBER: PubMed ID: 10698329

TITLE: Analgesic effects of botulinum toxin A: a randomized, placebo-controlled clinical trial.

AUTHOR: Barwood S; Baillieu C; Boyd R; Brereton K; Low J; Nattrass G; Graham H K  
CORPORATE SOURCE: The Department of Orthopaedic Surgery, The Royal Children's Hospital, Parkville, Victoria, Australia.  
SOURCE: Developmental medicine and child neurology, \*\*\* (2000) \*\*\*  
\*\*\* Feb) \*\*\* Vol. 42, No. 2, pp. 116-21.  
Journal code: 0006761. ISSN: 0012-1622.  
PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: (CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
(RANDOMIZED CONTROLLED TRIAL)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200003  
ENTRY DATE: Entered STN: 20000320  
Last Updated on STN: 20000320  
Entered Medline: 20000308

AB Postoperative \*\*\*pain\*\*\* in children with spastic cerebral palsy (CP) is often attributed to muscle spasm and is difficult to manage using opiates and benzodiazepines. Adductor-release \*\*\*surgery\*\*\* to treat or prevent hip dislocation in children with spastic CP is frequently performed and is often accompanied by severe postoperative \*\*\*pain\*\*\* and spasm. A double-blinded, randomized, placebo-controlled clinical trial of 16 patients (mean age 4.7 years) with a mainly spastic type of CP (either diplegic or quadriplegic in distribution) was used to test the hypothesis that a significant proportion of postoperative \*\*\*pain\*\*\* is secondary to muscle spasm and, therefore, might be reduced by a preoperative chemodenervation of the target surgical muscle by intramuscular injection of \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* A (BTX/A). Compared with the placebo, BTX/A was found to be associated with a reduction in mean \*\*\*pain\*\*\* scores of 74% ( $P < 0.003$ ), a reduction in mean analgesic requirements of approximately 50% ( $P < 0.005$ ), and a reduction in mean length of hospital admission of 33% ( $P < 0.003$ ). It was concluded that an important component of postoperative \*\*\*pain\*\*\* in the patient population is due to muscle spasm and this can be managed effectively by preoperative injection with BTX/A. These findings may have implications for the management of \*\*\*pain\*\*\* secondary to muscle spasm in other clinical settings.

L13 ANSWER 5 OF 16 MEDLINE on STN  
ACCESSION NUMBER: 1999385306 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 10458124  
TITLE: Therapeutic effects of different doses of botulinum toxin in chronic anal fissure.  
AUTHOR: Minguez M; Melo F; Espi A; Garcia-Granero E; Mora F; Lledo S; Benages A  
CORPORATE SOURCE: Department of Gastroenterology, Clinic Hospital, University of Valencia, Spain.  
SOURCE: Diseases of the colon and rectum, \*\*\* (1999 Aug) \*\*\* Vol. 42, No. 8, pp. 1016-21.  
Journal code: 0372764. ISSN: 0012-3706.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: (CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199909  
ENTRY DATE: Entered STN: 19990921  
Last Updated on STN: 20000811  
Entered Medline: 19990908

AB PURPOSE: The aim of this study was to evaluate the clinical and manometric results of three different doses of \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* and two methods of injection for the treatment of chronic idiopathic anal fissure. METHODS: Sixty-nine patients with chronic anal fissure were included in a non-randomized, prospective trial of intrasphincteric injection of \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\*. All patients reported postdefecatory anal \*\*\*pain\*\*\* lasting more than two months. Scoring systems were developed for anal \*\*\*pain\*\*\*, bleeding, and defecatory difficulty. Maximum resting and squeeze anal pressures were determined before and one month after treatment. Twenty-three patients undergoing a 5-U injection of diluted \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* A (BOTOX) on

each side of the anal sphincter (total dose, 10 U) constituted the first group. In a second group 27 patients were injected as previously described, with an additional 5-U injection below the fissure (total dose, 15 U). The 19 patients constituting the third group received a 7-U injection on each side of the anus and below the fissure (total dose, 21 U). All patients were followed up for at least six months. RESULTS:

\*\*\*Pain\*\*\* relief one month after treatment was more evident in the second and the third group (48 percent of patients in the first group, 74 percent in the second group, and 100 percent in the third group). A significant reduction of the mean resting pressure was demonstrated only in Groups II and III ( $P < 0.05$ ), whereas the mean squeeze pressure significantly decreased in the three groups ( $P < 0.01$  in Group I and  $P < 0.001$  in Groups II and III). Fifty-two percent of the patients in the first group, 30 percent in the second group, and 37 percent in the third group were reinjected during the follow-up period, because of persistence of symptomatology or early relapse. The need for \*\*\*surgery\*\*\* was similar in the first and the second group (17 and 19 percent, respectively) and clearly lower in the last group (5 percent). No serious complications or incontinence attributable to this therapeutic modality developed in any patient. CONCLUSIONS: Intraspincteric injection of

\*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* is a reliable new option in the treatment of uncomplicated chronic anal fissure. The healing rate is related to the dose and probably to the number of puncture sites. No permanent damage to the continence mechanism was detected in these patients.

L13 ANSWER 6 OF 16 MEDLINE on STN  
ACCESSION NUMBER: 1999362050 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 10435697  
TITLE: Achalasia: diagnosis and management.  
AUTHOR: Vaezi M F  
CORPORATE SOURCE: Center for Swallowing and Esophageal Disorders, Cleveland Clinic Foundation, OH 44195, USA.  
SOURCE: Seminars in gastrointestinal disease, \*\*\* (1999 Jul) \*\*\*  
Vol. 10, No. 3, pp. 103-12.  
Journal code: 9100391. ISSN: 1049-5118.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: (CASE REPORTS)  
Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199909  
ENTRY DATE: Entered STN: 19991012  
Last Updated on STN: 19991012  
Entered Medline: 19990928

AB Achalasia is a primary esophageal motor disorder of unknown cause that produces complaints of dysphagia, regurgitation, and chest \*\*\*pain\*\*\*. The current treatments for achalasia involve the reduction of lower esophageal sphincter (LES) pressure, resulting in improved esophageal emptying. Calcium channel blockers and nitrates, once used as an initial treatment strategy for early achalasia, are now used only in patients who are not candidates for pneumatic dilation or \*\*\*surgery\*\*\*, and in patients who do not respond to \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* injections. Because of the more rigid balloons, the current pneumatic dilators are more effective than the older, more compliant balloons. The graded approach to pneumatic dilation, using the Rigidflex (Boston Scientific Corp, Boston, MA) balloons (3.0, 3.5, and 4.0 cm) is now the most commonly used nonsurgical means of treating patients with achalasia, resulting in symptom improvement in up to 90% of patients. Surgical myotomy, once plagued by high morbidity and long hospital stay, can now be performed laparoscopically, with similar efficacy to the open surgical approach (94% versus 84%, respectively), reduced morbidity, and reduced hospitalization time. Because of the advances in both balloon dilation and laparoscopic myotomy, most patients with achalasia can now choose between these two equally efficacious treatment options.  
\*\*\*Botulinum\*\*\* \*\*\*toxin\*\*\* injection of the LES should be reserved for patients who can not undergo balloon dilation and are not surgical candidates.

L13 ANSWER 7 OF 16 MEDLINE on STN  
ACCESSION NUMBER: 1998436386 MEDLINE

DOCUMENT NUMBER: PubMed ID: 9763895  
TITLE: [New concepts on the physiopathology, diagnosis, and treatment of achalasia].  
Nuevos conceptos en fisiopatologia, diagnostico y tratamiento de la acalasia.  
AUTHOR: Carmona-Sanchez R; Valdovinos-Diaz M A  
CORPORATE SOURCE: Departamento de Gastroenterologia y, Instituto Nacional de la Nutricion Salvador Zubiran, Mexico, D.F..  
rcarmona@aztlan.innsz.mx  
SOURCE: Revista de investigacion clinica; organo del Hospital de Enfermedades de la Nutricion, \*\*\* (1998 May-Jun)\*\*\* Vol. 50, No. 3, pp. 263-76. Ref: 213  
Journal code: 9421552. ISSN: 0034-8376.  
PUB. COUNTRY: Mexico  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
LANGUAGE: Spanish  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199811  
ENTRY DATE: Entered STN: 19990106  
Last Updated on STN: 19990106  
Entered Medline: 19981119

AB OBJECTIVES: To review the most relevant publications on the pathophysiology, clinical manifestations, diagnosis and treatment of esophageal achalasia, and the clinical experience achieved at our institution in order to propose a practical strategy to facilitate the management of these patients. DATA SOURCES: Manual and MEDLINE search of key articles published between January 1986 and July 1997 in addition to publications of our institute of thirty years. STUDY SELECTION: All kinds of publications with substantial clinical experience, new information or research protocols. DATA SYNTHESIS: Achalasia is an uncommon disorder of the myenteric plexus of the esophagus. Main symptoms are dysphagia, regurgitations and chest \*\*\*pain\*\*\*. The diagnosis is established by manometric criteria. Esophagogram, endoscopy and radionuclide esophageal emptying test help to differentiate other conditions and evaluate the response to treatment. Pharmacotherapy may provide relief to patients with mild symptoms and is useful for patients with high risk of complications. Dilations and myotomy are safe, effective and long lasting procedures. \*\*\*Botulinum\*\*\* \*\*\*toxin\*\*\* may be effective in selected cases. Predictive factors of response have been described for each therapy. CONCLUSION: A systematic approach to the management of patients with achalasia is necessary. Introduction of new therapies as \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* and minimal invasion \*\*\*surgery\*\*\* are changing the therapeutic decisions in this field. Drugs and BoTox are considered the first line of treatment for high risk patients and dilation and \*\*\*surgery\*\*\* for patients with no risk.

L13 ANSWER 8 OF 16 MEDLINE on STN  
ACCESSION NUMBER: 1998370263 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 9706766  
TITLE: Current therapies for achalasia: comparison and efficacy.  
AUTHOR: Vaezi M F; Richter J E  
CORPORATE SOURCE: Department of Gastroenterology, The Cleveland Clinic Foundation, Ohio 44195, USA.  
SOURCE: Journal of clinical gastroenterology, \*\*\* (1998 Jul)\*\*\*  
Vol. 27, No. 1, pp. 21-35. Ref: 112  
Journal code: 7910017. ISSN: 0192-0790.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199810  
ENTRY DATE: Entered STN: 19981020  
Last Updated on STN: 20000113  
Entered Medline: 19981008

AB Achalasia is a primary esophageal motor disorder of unknown etiology producing complaints of dysphagia, regurgitation, and chest \*\*\*pain\*\*\*. The current treatments for achalasia involve the reduction of lower esophageal sphincter (LES) pressure resulting in improved esophageal emptying. Calcium channel blockers and nitrates, once used as initial



treatment strategy for early achalasia, are now only used in patients who are not candidates for pneumatic dilation or \*\*\*surgery\*\*\* and those not responding to \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* injections. By virtue of the more rigid balloons, the current pneumatic dilators are more effective and have better efficacy than the older more compliant balloons. The graded approach to pneumatic dilation using the Rigiflex balloons (3.0, 3.5, and 4.0 cm) are now the most commonly used nonsurgical means of treating patients with achalasia, resulting in symptom improvement in up to 90% of patients. Surgical myotomy, once with high morbidity and long hospital stay, can now be performed laparoscopically with similar efficacy to the open surgical approach (94% vs. 84%, respectively), reduced morbidity, and hospitalization time. Given the advances in both balloon dilation and laparoscopic myotomy, most patients with achalasia can now choose between these two equally efficacious treatment options.

\*\*\*Botulinum\*\*\* \*\*\*toxin\*\*\* injection of the LES should be reserved for patients who cannot undergo balloon dilation and are not surgical candidates.

L13 ANSWER 9 OF 16 MEDLINE on STN  
 ACCESSION NUMBER: 1998076023 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 9415541  
 TITLE: Delayed segmental axial dystonia of the trunk on standing after lumbar disk operation.  
 AUTHOR: Ghika J; Nater B; Henderson J; Bogousslavsky J; Regli F  
 CORPORATE SOURCE: Service de Neurologie, CHUV, Lausanne, Switzerland.  
 SOURCE: Journal of the neurological sciences, \*\*\* (1997 Nov 25) \*\*\*  
 Vol. 152, No. 2, pp. 193-7.  
 Journal code: 0375403. ISSN: 0022-510X.  
 PUB. COUNTRY: Netherlands  
 DOCUMENT TYPE: (CASE REPORTS)  
 Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199802  
 ENTRY DATE: Entered STN: 19980217  
 Last Updated on STN: 19980217  
 Entered Medline: 19980204

AB We report four patients with various degrees of chronic, tonic, mildly painful, or non-painful, kyphoscolioses in orthostatism, which developed weeks, or months, after one or several laminectomies for lumbar disk hernia, in the absence of recurring radicular \*\*\*pain\*\*\* or acute lumbar \*\*\*pain\*\*\*. No family history or personal antecedent, of focal or generalized dystonia was found and the dystonia was not seen in any of the four patients pre-operatively, or during the immediate \*\*\*post\*\*\* - \*\*\*operative\*\*\* period. Only ill-defined lumbar 'discomfort', unlike their pre-operative lumbago, was reported by the patients, before and during the occurrence of the pathologic trunk posture on standing. Asymmetric lumbar muscle tonic contraction and hypertrophy was found on physical examination. In all patients, the kyphoscoliosis was maximal when standing, partially disappeared when seated, and completely when lying down. One patient responded well to clonazepam, but the other three showed no improvement with either clonazepam or local injections of \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\*; L-dopa was ineffective in all cases, and trihexiphenidyle in three.

L13 ANSWER 10 OF 16 MEDLINE on STN  
 ACCESSION NUMBER: 97374357 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 9230806  
 TITLE: Laparoscopic Heller myotomy and fundoplication for achalasia.  
 AUTHOR: Hunter J G; Trus T L; Branum G D; Waring J P  
 CORPORATE SOURCE: Department of Surgery, Emory University School of Medicine, Atlanta, Georgia, USA.  
 SOURCE: Annals of surgery, \*\*\* (1997 Jun) \*\*\* Vol. 225, No. 6, pp. 655-64; discussion 664-5.  
 Journal code: 0372354. ISSN: 0003-4932.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals  
 ENTRY MONTH: 199708

ENTRY DATE: Entered STN: 19970813  
Last Updated on STN: 20000303  
Entered Medline: 19970806

AB OBJECTIVE: The goal of this study was to review the authors' results with laparoscopic cardiomyotomy and partial fundoplication for achalasia.  
SUMMARY BACKGROUND DATA: Pneumatic dilatation and \*\*\*botulinum\*\*\*  
\*\*\*toxin\*\*\* (BOTOX) injection of the lower esophageal sphincter largely have replaced cardiomyotomy for treatment of achalasia. After a brief experience with a thoracoscopic approach, the authors elected to perform cardiomyotomy laparoscopically, in combination with a partial fundoplication (anterior or posterior). PATIENTS AND METHODS: Forty patients were treated between July 1992 and November 1996. Thirty patients had previous therapy of achalasia, 21 with pneumatic dilation, 1 with BOTOX, 6 with balloon and BOTOX, and 2 with transthoracic cardiomyotomy. Three patients had previous laparoscopic fundoplication for gastroesophageal reflux. Symptom scores (0 = none to 4 = disabling) were obtained before \*\*\*surgery\*\*\* and after \*\*\*surgery\*\*\*. Barium swallows and esophagogastroduodenoscopy were performed in all patients. Esophageal motility study was performed in 36 patients. Laparoscopic Heller myotomy and fundoplication was performed through five upper abdominal trocars. A 7-cm myotomy extended 6 cm above the GE junction and 1 cm below the GE junction. A posterior fundoplication was performed in 32 patients, anterior fundoplication in 7 patients, and no fundoplication in 1 patient. Statistical inference was performed with a Wilcoxon signed rank test. RESULTS: Mean operative duration was 199 +/- 36.2 minutes. Mean hospital stay was 2.75 days (range, 1-13 days). Dysphagia was alleviated in all but four patients (90%), and regurgitation in all but two patients (95%) ( $p < 0.001$ ). Chest \*\*\*pain\*\*\* and heartburn improved significantly ( $p < 0.01$ ) as well. Intraoperative complications included mucosal laceration in six patients and hypercarbia in one. Postoperative pneumonia developed in two patients, and one patient had moderate hemorrhage from an esophageal ulcer 2 weeks after \*\*\*surgery\*\*\*. CONCLUSIONS: Laparoscopic cardiomyotomy and fundoplication appears to provide definitive treatment of achalasia with rapid rehabilitation and few complications.

L13 ANSWER 11 OF 16 MEDLINE on STN  
ACCESSION NUMBER: 95312151 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 7791942  
TITLE: Cervical dystonia: a review the role of botulinum toxin.  
AUTHOR: Edwards L L; Normand M M; Wszolek Z K  
CORPORATE SOURCE: University of Rochester, Strong Hospital, NY, USA.  
SOURCE: The Nebraska medical journal, \*\*\* (1995 May) \*\*\* Vol. 80,  
No. 5, pp. 109-15.  
Journal code: 0326156. ISSN: 0091-6730.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199507  
ENTRY DATE: Entered STN: 19950807  
Last Updated on STN: 19970203  
Entered Medline: 19950727

AB Cervical dystonia, although rare in the general population, can severely affect the lives of those afflicted with the disease. Throughout history several theories have been proposed regarding its etiology and pathophysiology, from underlying mental disorders to post-infectious to altered basal ganglia and brainstem function. However, CD remains poorly understood. Because of its similarity to Idiopathic Torsion Dystonia a genetic basis is suspected, but is not proven. Without a true understanding of the disease treatment remains symptomatic, and begins with physical therapy and medications and progresses to consideration of \*\*\*surgery\*\*\*. These treatment strategies have provided some relief, which is usually less than satisfactory within a short period of time. Recently, the use of \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* has provided significant symptomatic relief of \*\*\*pain\*\*\* in CD and has been associated with subjective and objective improvement in head posture. This newest therapy, although symptomatic, restores a more normal head posture and \*\*\*pain\*\*\* relief enabling the individuals with CD to continue to be active and productive participants in life, providing a ray of hope to these people as we continue to search for a better

understanding of the disease process and the development of more effective treatment strategies.

L13 ANSWER 12 OF 16 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:219442 BIOSIS

DOCUMENT NUMBER: PREV200000219442

TITLE: Medium-term response characterisation and risk factor analysis of botulinum toxin type A in the management of spasticity in children with cerebral palsy.

AUTHOR(S): Boyd, Roslyn N. [Reprint author]; Graham, Judith E.A.; Nattrass, Gary R.; Graham, H. Kerr

CORPORATE SOURCE: Hugh Williamson Gait Laboratory, Royal Children's Hospital, Flemington Road, Parkville, Melbourne, Victoria, 3052, Australia

SOURCE: European Journal of Neurology, ( \*\*\*Nov., 1999\*\*\* ) Vol. 6, No. Suppl. 4, pp. S37-S45. print. ISSN: 1351-5101.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 31 May 2000

Last Updated on STN: 5 Jan 2002

AB We prospectively studied the medium-term effects of \*\*\*botulinum\*\*\*  
\*\*\*toxin\*\*\* type A (BTX-A) treatment in 197 children with cerebral palsy. Between one and four target muscles were selected according to functional goals and biomechanical assessments, and were injected at multiple sites with BTX-A (BOTOX(R)). The mean total dose administered was 10.5 U BOTOX(R)/kg body weight. In 37% of treatment episodes, children were safely treated with high doses, 12-16 U/kg body weight. Significant improvements were seen in the Modified Ashworth and Tardieu scales at 3 and 12 weeks post-injection, and in muscle length, as determined by joint range of motion, at 3, 12 and 24 weeks post-treatment. Significant improvements in gait were noted using the Modified Physicians' Rating Scale, and joint kinematics and kinetics. Forty-five per cent of children were subsequently managed by repeated BTX-A injections, 17% proceeded to single-level soft tissue \*\*\*surgery\*\*\* and 38% proceeded to multi-level \*\*\*surgery\*\*\* after mean intervals of 12.8, 16.4 and 17.3 months, respectively. Side effects were noted in 10 children (6.2% of total treatment occasions) and included local \*\*\*pain\*\*\* (1.2%), bruising (0.7%), temporary generalised weakness (0.3%), temporary incontinence (1.2%) and pneumonia (1.2%). In summary, BTX-A was safe and effective in the management of spasticity in children with cerebral palsy. Side effects were infrequent, usually minor and self-limiting.

L13 ANSWER 13 OF 16 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2001134943 EMBASE

TITLE: Progress in neuromuscular disorders.

AUTHOR: Novacheck T.F.; Walker K.R.

CORPORATE SOURCE: Dr. T.F. Novacheck, University of Minnesota, Gillette Children's Spec. Healthcare, 200 East University Avenue, St. Paul, MN 55101, United States. novac001@tc.umn.edu

SOURCE: Current Opinion in Orthopaedics, (2000) Vol. 11, No. 6, pp. 454-460. .

Refs: 43

ISSN: 1041-9918 CODEN: COORE

COUNTRY: United States

DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 007 Pediatrics and Pediatric Surgery  
019 Rehabilitation and Physical Medicine  
033 Orthopedic Surgery  
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 30 Apr 2001

Last Updated on STN: 30 Apr 2001

AB The value of gait analysis as a tool for evaluation is affirmed by the number of articles that report its use in gait evaluation. Physical examination measures alone have limited value. Numerous gait analysis parameters have been identified and reported as valid. Joint angular velocity distinguishes normal from spastic gait. Gait analysis can

distinguish between idiopathic toe-walkers and children with cerebral palsy. Gait analysis can evaluate the effects of orthotics, lower extremity \*\*\*surgery\*\*\*, and postoperative therapy on gait.

\*\*\*Botulinum\*\*\* \*\*\*toxin\*\*\*, intrathecal baclofen, and rhizotomy are all reported as being effective in spasticity management. The role of each still requires further definition. Cerebral palsy hip dysplasia can be effectively managed with aggressive surgical intervention.

\*\*\*Pain\*\*\* relief in long-standing cerebral palsy hip dislocations can be achieved with either prosthetic replacement or proximal femoral resection. Pelvic obliquity may occur in Duchenne muscular dystrophy after fusion of lumbar curves to L5. Functional outcome measures show significant benefit of spinal fusion in patients with Duchenne muscular dystrophy. Circular frame limb lengthening is well tolerated in spina bifida without increased risk. Patients with lower-level myelomeningocele have a delayed onset of walking. Elbow \*\*\*surgery\*\*\* in arthrogryposis effectively improves function and restores range of motion.  
.COPYRGT. 2000 Lippincott Williams & Wilkins, Inc.

L13 ANSWER 14 OF 16 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2001041119 EMBASE  
TITLE: Pharmacological and surgical options for the treatment of cervical dystonia.  
AUTHOR: Adler C.H.; Kumar R.  
CORPORATE SOURCE: Dr. C.H. Adler, Mayo Clinic Scottsdale, Dept. of Neurology, 13400 East Shea Blvd., Scottsdale, AZ 85259, United States  
SOURCE: Neurology, (26 Dec 2000) Vol. 55, No. 12 SUPPL. 5, pp. S9-S14.  
Refs: 60  
ISSN: 0028-3878 CODEN: NEURAI  
COUNTRY: United States  
DOCUMENT TYPE: Journal; Conference Article  
FILE SEGMENT: 008 Neurology and Neurosurgery  
037 Drug Literature Index  
038 Adverse Reactions Titles  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
ENTRY DATE: Entered STN: 15 Feb 2001  
Last Updated on STN: 15 Feb 2001

AB Cervical dystonia (CD) is a condition in which patients experience involuntary and abnormal head movements, such as tilting, twisting, or extension, often accompanied by \*\*\*pain\*\*\*. Although the exact pathologic mechanisms underlying idiopathic CD have not yet been identified, a number of therapeutic strategies have been developed to alleviate the symptoms of this disorder. Oral medications include anticholinergic agents, dopamine receptor antagonists, and GABAmimetic agents. These drugs are employed in a trial-and-error manner and have a low rate of efficacy. Localized therapy using \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* injections has revolutionized the treatment of CD, providing a high rate of response with a low incidence of side effects. However, as with oral medications, neurotoxin therapy is palliative, not curative, and repeated injections are required. In patients who develop resistance to \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* therapy and who do not achieve an adequate response to, or are intolerant of, oral medications, surgical approaches are appropriate. Among the options for peripheral \*\*\*surgery\*\*\*, the greatest experience and most consistent results have been achieved with selective dorsal rhizotomy. Recent developments in stereotactic \*\*\*surgery\*\*\* suggest that, for more complex forms of CD or when more widespread dystonia is present, bilateral pallidotomy or globus pallidus deep brain stimulation may be the treatment of choice.

L13 ANSWER 15 OF 16 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2000020020 EMBASE  
TITLE: Medium-term response characterisation and risk factor analysis of botulinum toxin type A in the management of spasticity in children with cerebral palsy.  
AUTHOR: Boyd R.N.; Graham J.E.A.; Nattrass G.R.; Graham H.K.  
CORPORATE SOURCE: R.N. Boyd, Hugh Williamson Gait Laboratory, Royal Children's Hospital, Flemington Road, Parkville, Melbourne, Vic. 3052, Australia. boydr@cryptic.rch.unimelb.edu.au

SOURCE: European Journal of Neurology, (1999) Vol. 6, No. SUPPL. 4,  
pp. S37-S45. .  
Refs: 41  
ISSN: 1351-5101 CODEN: EJNEFL  
COUNTRY: United Kingdom  
DOCUMENT TYPE: Journal; Conference Article  
FILE SEGMENT: 007 Pediatrics and Pediatric Surgery  
008 Neurology and Neurosurgery  
037 Drug Literature Index  
038 Adverse Reactions Titles  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
ENTRY DATE: Entered STN: 20 Jan 2000  
Last Updated on STN: 20 Jan 2000

AB We prospectively studied the medium-term effects of \*\*\*botulinum\*\*\*  
\*\*\*toxin\*\*\* type A (BTX-A) treatment in 197 children with cerebral  
palsy. Between one and four target muscles were selected according to  
functional goals and biomechanical assessments, and were injected at  
multiple sites with BTX-A (BOTOX.RTM.). The mean total dose administered  
was 10.5 U BOTOX.RTM./kg body weight. In 37% of treatment episodes,  
children were safely treated with high doses, 12-16 U/kg body weight.  
Significant improvements were seen in the Modified Ashworth and Tardieu  
scales at 3 and 12 weeks post-injection, and in muscle length, as  
determined by joint range of motion, at 3, 12 and 24 weeks post-treatment.  
Significant improvements in gait were noted using the Modified Physicians'  
Rating Scale, and joint kinematics and kinetics. Forty-five per cent of  
children were subsequently managed by repeated BTX-A injections, 17%  
proceeded to single-level soft tissue \*\*\*surgery\*\*\* and 38% proceeded  
to multi-level \*\*\*surgery\*\*\* after mean intervals of 12.8, 16.4 and  
17.3 months, respectively. Side effects were noted in 10 children (6.2%  
of total treatment occasions) and included local \*\*\*pain\*\*\* (1.2%),  
bruising (0.7%), temporary generalised weakness (0.3%), temporary  
incontinence (1.2%) and pneumonia (1.2%). In summary, BTX-A was safe and  
effective in the management of spasticity in children with cerebral palsy.  
Side effects were infrequent, usually minor and self-limiting.

L13 ANSWER 16 OF 16 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights  
reserved on STN

ACCESSION NUMBER: 95370415 EMBASE  
DOCUMENT NUMBER: 1995370415  
TITLE: Esophageal motility.  
AUTHOR: Fennerty M.B.; Garewal H.S.  
CORPORATE SOURCE: Section of Hem-Onc and Gastro (111D), Veterans Affairs  
Medical Center, 3601 South 6th Avenue, Tuscon, AZ 85723,  
United States  
SOURCE: Current Opinion in Gastroenterology, (1995) Vol. 11, No. 4,  
pp. 339-345. .  
ISSN: 0267-1379 CODEN: COGAEK  
COUNTRY: United Kingdom  
DOCUMENT TYPE: Journal; General Review  
FILE SEGMENT: 006 Internal Medicine  
037 Drug Literature Index  
048 Gastroenterology  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
ENTRY DATE: Entered STN: 9 Jan 1996  
Last Updated on STN: 9 Jan 1996

AB Animal studies continue to provide evidence that nitric oxide is an  
important mediator of lower esophageal tone with additional effects on the  
body. Several motility changes occur with age, including aperistalsis of  
unknown origin, contributing to swallowing difficulties. Motilin  
agonists, like erythromycin, increase lower esophageal sphincter pressure,  
suggesting possible benefit in reflux disease. Evaluation of esophageal  
causes of noncardiac chest \*\*\*pain\*\*\* seems to be of clinical benefit.  
Pneumatic dilatation or \*\*\*surgery\*\*\* are equally effective approaches  
to achalasia. \*\*\*Botulinum\*\*\* \*\*\*toxin\*\*\* injection holds promise  
in treating this disorder. The primary abnormality in reflux disease  
seems to be abnormal motility. Scleroderma-like motility abnormalities  
have been described in breast-fed children of mothers with silicon breast  
implants.

=> d his

(FILE 'HOME' ENTERED AT 10:37:34 ON 04 APR 2006)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT  
10:38:08 ON 04 APR 2006

L1 30132 S BOTULINUM (W) (TOXIN OR NEUROTOXIN)  
L2 903941 S PAIN  
L3 101136 S L2 (P) (POST-OPERATIVE OR SURGERY)  
L4 160 S L1 (P) L3  
L5 73 DUPLICATE REMOVE L4 (87 DUPLICATES REMOVED)  
L6 28315 S L2 (10A) (POST-OPERATIVE OR SURGERY)  
L7 36 S L1 (P) L6  
L8 13 DUPLICATE REMOVE L7 (23 DUPLICATES REMOVED)  
L9 2060 S L2 (10A) INCISION?  
L10 1 S L1 (P) L9  
L11 0 S L10 NOT L6  
L12 19 S L5 AND PY <2001  
L13 16 S L12 NOT L8

=> s aoki k?/au

L14 12758 AOKI K?/AU

=> s aoki r?/au

L15 1002 AOKI R?/AU

=> s cui m?/au

L16 1305 CUI M?/AU

=> s jenkins s?/au

L17 4265 JENKINS S?/AU

=> s l14 or l15 or l16 or l17

L18 19299 L14 OR L15 OR L16 OR L17

=> s l18 and l1

L19 219 L18 AND L1

=> s l19 and l3

L20 4 L19 AND L3

=> duplicate remove l20

DUPLICATE PREFERENCE IS 'CAPLUS, EMBASE'

KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n

PROCESSING COMPLETED FOR L20

L21 4 DUPLICATE REMOVE L20 (0 DUPLICATES REMOVED)

=> s l21 not (l8 or l13)

L22 4 L21 NOT (L8 OR L13)

=> d l22 1-4 ibib abs

L22 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:90086 CAPLUS

DOCUMENT NUMBER: 136:156405

TITLE: Method for structural modifying Clostridial  
neurotoxins for altering biological activity or  
persistence by leucine-based motifs

INVENTOR(S): Steward, Lance E.; Fernandez-Salas, Ester; Herrington,  
Todd M.; \*\*\*Aoki, Kei Roger\*\*\*

PATENT ASSIGNEE(S): Allergan Sales, Inc., USA

SOURCE: PCT Int. Appl., 102 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WG 2002008268 A2 20020131 WO 2001-US23122 20010720  
 WO 2002008268 A3 20030220  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,  
 RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,  
 UZ, VN, YU, ZA, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 US 6903187 B1 20050607 US 2000-620840 20000721  
 CA 2416988 AA 20020131 CA 2001-2416988 20010720  
 EP 1309618 A2 20030514 EP 2001-959115 20010720  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 BR 2001012715 A 20030520 BR 2001-12715 20010720  
 NZ 523662 A 20050324 NZ 2001-523662 20010720  
 JP 2005517627 T2 20050616 JP 2002-514172 20010720  
 US 2005276820 A1 20051215 US 2005-39268 20050119

PRIORITY APPLN. INFO.:

US 2000-620840 A 20000721  
 WO 2001-US23122 W 20010720

AB The invention provides a method for structural modifying \*\*\*botulinum\*\*\*  
 \*\*\*toxin\*\*\* with leucine-based motifs. Modified neurotoxin comprising  
 neurotoxin including structural modification, wherein the structural  
 modification alters the biol. persistence, such as the biol. half-life  
 and/or a biol. activity of the modified neurotoxin relative to an  
 identical neurotoxin without the structural modification. In one  
 embodiment, methods of making the modified neurotoxin include using  
 recombinant techniques. In another embodiment, methods of using the  
 modified neurotoxin to treat conditions include treating various  
 disorders, neuromuscular ailments and pain.

L22 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:780715 CAPLUS

DOCUMENT NUMBER: 135:298813

TITLE: Method for treating pain by peripheral administration  
 of a neurotoxin

INVENTOR(S): \*\*\*Aoki, Kei Roger\*\*\* ; \*\*\*Cui, Minglei\*\*\* ;  
 \*\*\*Jenkins, Stephen\*\*\*

PATENT ASSIGNEE(S): Allergan Sales, Inc., USA

SOURCE: PCT Int. Appl., 62 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001078760	A2	20011025	WO 2001-US11836	20010411
WO 2001078760	A3	20020321		
W:				
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,				
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,				
LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,				
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,				
YU, ZA, ZW				
RW:				
GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,				
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,				
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6464986	B1	20021015	US 2000-550371	20000414
CA 2406367	AA	20011025	CA 2001-2406367	20010411
EP 1272207	A2	20030108	EP 2001-924939	20010411
R:				
AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001010030	A	20030603	BR 2001-10030	20010411
JP 2003531127	T2	20031021	JP 2001-576060	20010411
NZ 521535	A	20040924	NZ 2001-521535	20010411
EP 1550456	A2	20050706	EP 2005-6626	20010411
EP 1550456	A3	20051207		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, FI, CY, TR

EP 1576963 A2 20050921 EP 2005-6627 20010411  
EP 1576963 A3 20051207

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, FI, CY, TR

EP 1604678 A1 20051214 EP 2005-6622 20010411  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, FI, CY, TR

EP 1604679 A1 20051214 EP 2005-6623 20010411  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, FI, CY, TR

EP 1604680 A1 20051214 EP 2005-6624 20010411  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, FI, CY, TR

EP 1604681 A1 20051214 EP 2005-6625 20010411  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, FI, CY, TR

US 2002176872 A1 20021128 US 2002-199222 20020718  
US 6869610 B2 20050322  
US 2004018212 A1 20040129 US 2003-630204 20030729  
US 2004018213 A1 20040129 US 2003-630206 20030729  
US 2004018214 A1 20040129 US 2003-630604 20030729  
US 2004028706 A1 20040212 US 2003-630587 20030729  
US 2005058666 A1 20050317 US 2004-943133 20040915  
US 2005152925 A1 20050714 US 2004-3677 20041203  
US 2006039916 A1 20060223 US 2005-205357 20050816  
US 2006039917 A1 20060223 US 2005-205596 20050816

PRIORITY APPLN. INFO.:  
US 2000-550371 A 20000414  
EP 2001-924939 A3 20010411  
WO 2001-US11836 W 20010411  
US 2002-199222 A1 20020718  
US 2003-630206 A1 20030729

AB Methods are disclosed for treating a non-spasm-caused pain by peripheral  
administration to a patient of a therapeutically effective amt. of a  
neurotoxin, e.g. a \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\*

L22 ANSWER 3 OF 4 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights  
reserved on STN

ACCESSION NUMBER: 2005330292 EMBASE  
TITLE: Pharmacology and immunology of \*\*\*botulinum\*\*\*  
\*\*\*neurotoxins\*\*\*  
AUTHOR: \*\*\*Aoki K.R.\*\*\*  
CORPORATE SOURCE: Dr. K.R. Aoki, Neurotoxins Research Program, Biological  
Sciences, LLC, 2525 Dupont Drive, Irvine, CA 92612, United  
States  
SOURCE: International Ophthalmology Clinics, (2005) Vol. 45, No. 3,  
pp. 25-37.  
Refs: 79  
ISSN: 0020-8167 CODEN: IOPCAV  
COUNTRY: United States  
DOCUMENT TYPE: Journal; General Review  
FILE SEGMENT: 026 Immunology, Serology and Transplantation  
030 Pharmacology  
037 Drug Literature Index  
038 Adverse Reactions Titles  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
ENTRY DATE: Entered STN: 25 Aug 2005  
Last Updated on STN: 25 Aug 2005

AB \*\*\*Botulinum\*\*\* \*\*\*toxin\*\*\* type A has been used in ophthalmology  
since the late 1970s and continues today as a first-line therapy for most  
focal dystonias and an alternative to \*\*\*surgery\*\*\* for strabismus.  
\*\*\*Botulinum\*\*\* \*\*\*toxin\*\*\* type A injections for facial lines are  
the most frequently performed cosmetic procedures in the United States.  
\*\*\*Botulinum\*\*\* \*\*\*neurotoxins\*\*\* are biologic products synthesized  
by bacteria as 150-kd proteins in association with several nontoxin  
proteins. The neurotoxin proteins inhibit acetylcholine release at the  
neuromuscular junction through a series of steps that can generally be  
described as binding, internalization, and proteolysis of specific SNARE  
proteins that are necessary for vesicular neurotransmitter release. Over



time, exocytotic release is reinstituted in the affected neurons and clinical symptoms often return; at this time, reinjection is necessary to maintain benefit. Inhibition of neurotransmitter release from peptidergic neurons has also been described for \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* type A, and it has been speculated that such effects may contribute to its beneficial effects on \*\*\*pain\*\*\* in certain conditions. As biologic products, \*\*\*botulinum\*\*\* \*\*\*neurotoxins\*\*\* are dosed in units of biologic activity, which vary significantly between preparations. Differences have also been described in duration of action between \*\*\*botulinum\*\*\* \*\*\*neurotoxin\*\*\* serotypes and in adverse event profiles between preparations containing the same serotype (ie, type A) and different serotypes (eg, type B). Immuno-resistance may no longer be a significant concern with \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* type A (BOTOX), although additional studies with the other \*\*\*botulinum\*\*\* \*\*\*neurotoxin\*\*\* preparations are necessary to determine their rates of neutralizing antibody formation. The pharmacology of \*\*\*botulinum\*\*\* \*\*\*neurotoxins\*\*\* continues to be an area of research progress and discovery. Our understanding of these proteins has led not only to advances in clinical aesthetics and therapeutics but also to a greater understanding of cellular membrane fusion activities.

L22 ANSWER 4 OF 4 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2005033528 EMBASE  
 TITLE: Natural history of posttraumatic cervical dystonia.  
 AUTHOR: Frei K.P.; Pathak M.; \*\*\*Jenkins S.\*\*\* ; Truong D.D.  
 CORPORATE SOURCE: Dr. D.D. Truong, Parkinson's/Movement Disorder Inst., 9940  
 Talbert Ave., Fountain Valley, CA 92708, United States.  
 dtruong@pmdi.org  
 SOURCE: Movement Disorders, (2004) Vol. 19, No. 12, pp. 1492-1498.

Refs: 25  
 ISSN: 0885-3185 CODEN: MOVDEA

COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article  
 FILE SEGMENT: 008 Neurology and Neurosurgery  
 033 Orthopedic Surgery  
 037 Drug Literature Index

LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 4 Feb 2005  
 Last Updated on STN: 4 Feb 2005

AB We studied a case series of 9 patients with posttraumatic cervical dystonia, in whom involuntary muscle spasms and abnormal head postures occurred within 7 days after cervical injury. Patients were examined, treated with \*\*\*botulinum\*\*\* \*\*\*toxin\*\*\* as necessary, and were followed up to 5 years. Based on our observations of these cases, we propose that complex regional pain syndrome (CRPS) could represent a variant of posttraumatic cervical dystonia that may develop over time after the initiation of dystonia. .COPYRG. 2004 Movement Disorder Society.

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(FILE 'HOME' ENTERED AT 10:37:34 ON 04 APR 2006)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT 10:38:08 ON 04 APR 2006

L1 30132 S BOTULINUM (W) (TOXIN OR NEUROTOXIN)  
 L2 903941 S PAIN  
 L3 101136 S L2 (P) (POST-OPERATIVE OR SURGERY)  
 L4 160 S L1 (P) L3  
 L5 73 DUPLICATE REMOVE L4 (87 DUPLICATES REMOVED)  
 L6 28315 S L2 (10A) (POST-OPERATIVE OR SURGERY)  
 L7 36 S L1 (P) L6  
 L8 13 DUPLICATE REMOVE L7 (23 DUPLICATES REMOVED)  
 L9 2060 S L2 (10A) INCISION?  
 L10 1 S L1 (P) L9  
 L11 0 S L10 NOT L6  
 L12 19 S L5 AND PY <2001

L13        16 S L12 NOT L8  
 L14       12758 S AOKI K?/AU  
 L15       1002 S AOKI R?/AU  
 L16       1305 S CUI M?/AU  
 L17       4265 S JENKINS S?/AU  
 L18       19299 S L14 OR L15 OR L16 OR L17  
 L19       219 S L18 AND L1  
 L20       4 S L19 AND L3  
 L21       4 DUPLICATE REMOVE L20 (0 DUPLICATES REMOVED)  
 L22       4 S L21 NOT (L8 OR L13)

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COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	90.90	91.11
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-2.25	-2.25

STN INTERNATIONAL LOGOFF AT 10:48:33 ON 04 APR 2006